



# The I/O Connector

MARCH/APRIL 1986  
COST \$1.00

The Newsletter of the San Diego Atari Computer Enthusiasts

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**OPTION WINDOW**

**APPOINTMENTS**

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**APPOINTMENTS**

S.D.A.C.E.\_MEETING

NORTH PARK

MAY\_1,\_1986

6:30\_pm

ST\_SIG\_MEETING

NORTH PARK

MAY\_19,\_1986

6:30\_pm

More details inside

## SAN DIEGO ATARI COMPUTER ENTHUSIASTS

is an independent, non-profit organization and user group with no connection to the ATARI Corporation. Membership fees are currently \$15.00 annually, from January 1 thru December 31 of the current calendar year. Membership includes free access to the computer program library, subscription to the "I/O Connector", and classes when held. Permission to reprint articles in any non-commercial form is permitted with specific authorization, as long as proper credit is given.

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 24 Hours

#### SUBMISSIONS TO THE NEWSLETTER

are most welcome, and due by the 15th of the month for publication in the next month's newsletter. Mail double-spaced text or (returnable) disks with text files to the Editor.

#### BUY/SELL/TRADE

ads are free to members of S.D.A.C.E. members. Ads must be 25 words or less, typewritten copy, please. The Editor will accept ads at the meetings or those mailed in to the above correspondence address. Deadline for ads is the same for articles - 15th of the month.

#### CALENDAR OF EVENTS

San Diego ATARI Computer Enthusiasts  
 First Thursday of the month at 6:30 pm  
 North Park Recreation Center  
 Adult Center

#### SIG

Third Monday of the month at 6:30 pm  
 North Park Recreation Center  
 4044 Idaho Street  
 Social Room

#### ATR 8000 SIG

Forth Wednesday of the month at 7:00 pm  
 Santana Rancho Estates  
 Recreation Room  
 Please use guest parking, See map below

#### San Diego Computer Society

Third Saturday of each month  
 12 noon: swap meet  
 1:30 pm: meeting  
 Mesa College, Apollo Theatre

## PRESIDENT'S LETTER

First the big news of the month, the S.D.A.C.E. meetings will now be held on the first Thursday of the month instead of the third Monday. The time of the meeting remains unchanged, 6:30 PM start time. And the location is slightly different. Instead of the social room, the meetings will be held in the adult center of the North Park Rec center. It is located at the northern edge of the park. This becomes effective this month. This was done to allow us a more flexible meeting. We were very cramped for space in the old meeting place, so Mark and I drove all over the city looking for a place to hold our meetings. After considering the locations and times available we chose the North Park site.

It also pleases me to be able to announce that we also now have a meeting time and place all set for the ST-SIG. It's the all familiar Social Room at the North Park Rec center, third Monday of each month. 6:30 PM.

Also on the ST front. The ST library should soon be in action. Money for the disks was voted on and the disks are being sorted out by ST-SIG chairman Jim Hartman.

Buy a new printer lately? Or software? Did you like it or dislike it? Well if the new format of the North Park meet you can bring it in and let us know why you did or didn't like it. 8-bit folks please step forward if you have anything to contribute to the meetings. Just let me know ahead of time so that I can announce it at the beginning of the meeting. Call either of the program directors or myself at home. Our numbers are in each newsletter.

The S.D.A.C.E. constitution is showing its age. It really is in need of a few patches. Please see Buck's column on it elsewhere in the newsletter.

I'd like to welcome back the old size of the newsletter. It's easier in many ways on all of us. It's easy to store in a 3-ring binder, easier to read, and most importantly it is easier to pay for. It is saving us about 1/2 of our

costs of printing it. Thanks go to the board for helping us watch our costs.

Well that I think about wraps it up on this end. So until next time, take care..

## SECRETARY'S REPORT

At the March board meeting on the 10th, all were present at which time the following was discussed:

It was announced that the Adult Center is now available at the North Park Recreation Center is now available for future club meetings. A discussion then took place concerning the change, when it would take effect, and when board meetings would now be scheduled. It was decided that the regular club meeting would be on the first Thursday of each month at the Adult Center because of it's larger size and the ability to partition off special interest groups, and the ST SIG would take over the original hall on the third Monday of each month. Board meetings would be held on the second Thursday of each month, a week after the regular meeting. This was done for many reasons, one of which was for the purpose of this report which always consisted of first the board's discussion of the regular meeting, then the holding of that meeting. Now, the secretary's report would first carry the regular meeting's minutes, then the board meeting's minutes for the following month. (Did you get that?) Anyhow, now all that was left is to have the membership approve it, and all was set. (I was not able to attend the regular meeting due to illness, but I understand it passed with flying colors, so see you at the new location and date).

The next board meeting which will be held April 10th, will be held at David Delgadillo's house. (Hey everybody, the party's at his house!-Just kidding) Dick Hiatt requested a slight change in future printings of membership cards to allow a set placement of the card number. Next, a motion was made and seconded to put forth a request to

the membership, an authorization to purchase a modem since the present BBS's modem was privately owned and it's owner would like it for other uses. And, since David Delgadillo has used his own personal printer for all the I/O connector printing,

he requested that a club-owned printer be purchased. So, these items and a proposed change in the club constitution that would allow non-recurring expenditures of \$100 be allowed without membership prior approval would be brought up at the regular meeting for the general membership to approve.

A special "Disk of the Month" was being prepared which consisted of special Print Shop icons. Further discussion on organizing the ST library and ways of getting it off the ground as quickly as possible. Also, in the interest of spreading the word about Atari and also as a means to raise revenue, a proposal was made that Atari bumper stickers be made available at club meetings at a small price. Dick Hiatt said he knew where he could get some. David Delgadillo requested envelopes with SDACE letterheads be available for club business. And lastly, the next meetings activities are sound demos on the midi device on both the 8 bit and 16 bit machines, and a color printer demo. And, as I mentioned earlier, illness prevented me from attending the regular meeting on March 17th, so I am not able to give a rundown on its events at this time.

## THE ATARI 130XE 512K UPGRADE

The Atari 130XE lends itself to memory increases quite easily. For those who may care the Freddie chip (Part # C061991-29) has been around for a while. Remember the 1400 and 1450XL computers? These machines used Freddie strictly for memory management of 64k. The pin on Freddie that we will be concerned with is pin 36. This pin is labeled 16KCAS. Pin 36 is used to enable the extra 64K bank(s) and is active low.

### Technical Overview

Now for the good part. If we redirect the output of pin 36 to another bank of 64K ram chips we can via software select any one of 8 banks of 64K. In this configuration one would have a maximum of 589,815 bytes of memory. The only disadvantage of this is the fact that under these constraints the hardware becomes more complex and the software to drive it does too. I recommend that for general purposes the 130XE be upgraded to a maximum of 320K. It gives the user sufficient "horsepower" and yet at the same time the software does not become too intense.

Now for the bad news. To implement the 320K mod one has to remove the internal basic ROM which really isn't that bad because most users are using Basic XL/XE anyway. The reason for this is quite good. That bit is required for the addressing of the extra bank(s) of memory. Actually one could use the Self-test bit but that requires additional hardware or a reburn of the O.S. ROM. More on that later.

### The Mod

What we will do is to wire up a 74LS138 to the 6520 PIA and to pin 36 of Freddie. This chip can be best described as a routing switch. The data that we want to re-direct is presented at pin 4 of the 138 and the data output is pins 15, 14, 13 and 12. The pins that tell the chip to what bank to direct its output

## ATARI REPAIRS

410/800XL/800/800XL/810/820/850/1050/1200XL

### SSL ENTERPRISES

STEVE LAWRENCE  
8924 DUNCAN RD.  
SAN DIEGO, CA 92126  
(619) 578-4742

to are pins 1, 2, and 3. Now for the installation.

1) Take 32 64K x 1 RAM chips and bend out pin 15 on all of them. Pin 15 is the CAS line.

2) Solder these chips onto the existing RAM chips in the 130. Do not solder anything to pin 15 yet! For ease of servicing and soldering I staggered these new RAM chips onto the existing ones. I recommend this highly. When you has completed soldering in each new bank take a piece of insulated wire and solder this wire to pin 15 of each new RAM chip. Wire wrap wire works nicely for this. Continue with this process until all 3 additional banks are wired.

3) Just to the right of Freddie is an area to solder in a 14 pin IC chip. We will use this area to supply +5 and ground to our 74138. Take a 74LS138 and bend out all of the pins except pins 8 and 16. Solder pins 8 and 16 into the holes of the unused chip area next to Freddie.

4) Next to the RAM chips is a chip with the part # of C025953. Behind the chip are two 33 ohm resistors (orange, orange, black, gold). Unsolder the right-most lead of the rear resistor (R111). Solder a wire from the free end of the resistor to PIN 15 of the 74138. Solder another wire from the land where the resistor used to go to pin 4 of the 74138.

5) Solder two wires from pins 11 and 16 of the 6520 PIA chip (Part # C014795-12) to pins 1 and 2 of the 74138. Also ground pins 3 and 5 of the 74138.

6) Solder the CAS line from each new bank of 64K to pins 14, 13, and 12 of the 74138.

7) Unsolder the Basic ROM chip from the board. This is the 24 pin chip that is located closest to the front of the machine just to the left of the 555 timer IC.

Thats it.

#### Conclusion and Tech notes:

To test each bank boot with DOS 2.5 with your basic cartridge, POKE 5439,49, set the appropriate PIA port bit, go to DOS and reformat DB. Continue through all the banks and check your directory. If you write a file to one bank, switch banks, and write another file, you will not lose what you wrote to the first. The real advantage is that you can have your ramdisk and Basic XE too. Around the bbs's here in Chicago there is a file floating around called RAMDISK2. The source code is available on CompuServe. By re-writing the routine you can have your ramdisk invisible to Basic XE and/or double density.

I mentioned previously about using the Self-test bit in the PIA port. To use this bit you have to disconnect the line on the PIA that runs to the PAL MMU and connect it to a 556 timer that will enable the self-test input to the PAL for about 3-5 seconds. Half of the timer is used for timing and the other half is used as an inverter. The reason for using a timer is that on boot-up the OS uses some of the routines in the self test to check for valid RAM and to determine RAM size. I have done this and then pulled the circuit out. It was just too "messy" to suit me.

One potential problem is the 555 timer used in the 130. This chip is used for system reset timing. If you press your system reset key down and hold it there the system should not reset. If it does you will notice that if you release it the system will reset again. The reason for this is because the 555 timer is putting out a spike that the system sees as a valid reset. To solve the problem replace the chip. It seems about 1 in 10 are bad.

That's it! Hope you enjoy the mod.

Rich Andrews  
Box 229-1 RR#7  
Lockport, IL 60441

## DANGERS OF NON-STANDARD

MEMORY EXPANSIONS

By: Bill Wilkinson, OSS

This technical note is being written because so many of the memory expansion schemes I see being touted are NOT compatible with a standard 130XE. If you implement the memory expansion per most of these schemes, you will be missing one important feature of the 130XE: the ability to direct ANTIC to do its DMA to either main memory or the requested bank of memory. In a standard 130XE, clearing bit 5 to zero requests ANTIC to follow the bank switching; setting bit 5 to a one tells it to remain in main memory, no matter what memory bank was requested.

This is an important feature! Mark Rose (also of OSS) and I will take credit for being instrumental in the creation of the function of this bit. When Atari asked us to do DOS 2.5 and its RamDisk, their prototype hardware had ANTIC following bit 4 along with the CPU. The most obvious problem with this is that you can't use the extra banks for CPU purposes (e.g., RamDisk) when ANTIC is doing its DMA in the memory between \$4000 and \$7FFF. The problem was especially acute with AtariWriter (the 16K cartridge version), since its display memory is ALWAYS in this range. Actually, Mark and I found that if you are ONLY using the bank select memory for a RamDisk, this is not an onerous restriction. It simply means that you could only do pseudo-sector transfers during vertical blank. And, in fact, DOS 2.5 still has a flag in it which you can POKE which will tell it to only use extended memory during deferred vertical blank.

Now, there was another hardware solution, which we mentioned to Atari: simply never allow ANTIC to use extended memory. We discussed the two options with Atari, and both they and we decided we felt strongly that the capability of bank selecting ANTIC's memory was important. Thus the use of that bit.

So, if your 800XL hardware mod

works with the AtariWriter cartridge, then you obviously adopted that second hardware solution: don't let ANTIC use extended memory. That is not a really terrible decision (especially if it is economically motivated), but it does mean that it is possible that some future 130XE software will not run on your modified machine. (Actually, I already have at least one piece of software, written in ACTION!, which depends on the 130XE's method. But it's only an ultra-fast picture switching demo, so it's no big deal.)

There is a mod to both the 130XE and 800XL which maintains the 130XE/ANTIC bank select capability. It was designed by Charles Andrews of Eugene, Oregon, and he showed a 320XE using this mod at CES in January (in Atari's booth, as a courtesy to him by Atari -- though it does appear to be an implicit endorsement of his scheme). I believe his method uses an entirely separate port for controlling the beyond-130XE extensions (in the \$D6xx range, maybe?). However, I devised a method of doing the same thing using only Port B. The scheme is outlined in the following paragraph.

A "LEGAL" 320XE: This mod depends on the fact that the diagnostic ROM area is only used at power up or by the self-test routines. At these times, both ANTIC and the CPU are using only main memory, so bits 4 and 5 of \$D301 are both set to one. Thus we change the "enable" of the diagnostics from the logic equation `diag_enable = not_bit7` to `diag_enable = not_bit7 and bit4 and bit5`. Then the enable for the extended RAM becomes `RAM_enable = (not_bit4 or not_bit5)` and we can now use bits 6 and 7 for bank selection in the same manner that other schemes use bits 6 and 5. Reason this works: even if Atari ever changes the self-diagnostics so that they check the extended RAM, they can't put that particular code in the ROM which overlays \$5000-\$57FF, because that's right in the middle of the RAM area they need to check!

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OHIO ST

30TH ST

## SPACE MEETINGS

S  
E  
W

## 1200 BAUD MODEMS FOR 8 BIT

## THE 130XE/320K UPGRADE

by Scott Peterson

(modified by Tom Harker  
of ICD 2/28/86)

After reading and building both the 800/288K upgrade (D.G.Byrd), and the 800XL/256K upgrade (C.Buchholz), I decided that there had to be a way to upgrade the 130XE. There is, and thanks to the "Freddie" chip (C061991) this modification was much easier to design than either of the other upgrades.

Since all ICs are soldered directly to the board on a 130XE, installation requires excellent soldering and de-soldering skills.

To install this upgrade you will need: a #2 phillips head screwdriver, small needle nosed pliers, wire cutters, a low wattage soldering iron, a de-soldering tool, and some fine (30 gauge) hook-up wire. See the parts list for the chips needed.

First, remove both the case and the metal shield to get down to the mother-board. Then de-solder and remove the eight ram-chips U26 thru U33 (MT4264). They are the inside row (closest to the TV RF module). Next, replace these with sixteen pin low profile sockets. Take a piece of wire and solder it from pin 1 of one of the new sockets to pin 1 of the next. Continue to do this until all the pin #1s of the new sockets are soldered together. Plug the 256K DRAMs into the sockets you have just installed.

Next, cut and bend up pin 15 on U23 (C014795 the PIA). Take your new 74LS158 and break off pins 5,6,7,9,10,11,12,13,14. Bend up the other pins except for pins 8 and 16. Install this "piggy-back" on top of U20 (HD14050 - located just to the right of C50) and solder pins 8 and 16 of this 74LS158 to pins 8 and 16 on U20. Now connect pin 15 (74LS158) to pin 8 (ground) with a short jumper wire.

Take a piece of wire about 4 in. long solder one end to pin 30 on the

chip marked "C014805" (this is 02 on the GTIA) on the mother board, and the other end to pin 1 of the new 74LS158. Next, solder a wire to pin 15 of U23 the PIA (the one you cut and bent out) and connect the other end to pin 2 on the new 74LS158. Solder a wire to pin 16 on U23 and connect the other end to pin 3 on the new 74LS158.

Take a 33 ohm 1/4 watt resistor and trim the leads to about 1/4 in. Solder one end of it to pin 4 of the new 74LS158. Connect a wire from pin 1 of the new DRAMs (any one of them) to the other end of this resistor. Re-assemble the RF shield making sure you are not shorting it to any of the modified hardware. Assemble the case and you are finished!

### PARTS LIST.

- 
- 1 - 74LS158 (2 to 1 Multiplexer)
  - 8 - 41256 dynamic RAM (150ns)
  - 1 - 33 ohm 1/4 watt resistor.
  - 8 - 16 pin low profile sockets.

The next page is a quick overview of the bit table and numbers to be used in location 54017(PORTB). I have finished modifying a RAMDISK handler for the extra ram. It uses a ram based OS so BASIC XE or XL can't be used.

The best deal for this mod. is to use SpartaDOS (available with SpartaDOS Construction Set or the US Doubler). The new RD.COM file supports it as a full 256K RAMDISK (any drive number) or a 192K RAMDISK with 64K reserved for BASIC XE. This 320XE modification is also totally compatible with ICD's RAMBO XL mod. for the 800XL and 1200XL computers.

MYDOS 4.0 also supports a very large single density RAMDISK. With BASIC XE you can use a 1500 sector RAMDISK and without it you can have about 2000 sectors.

This upgrade has been built and tested on a BBS, it has run for days on end without a memory loss or error. If you need help or more information feel free to call the Peanut Gallery (408)-384-3906. 24HR,

300/1200 Baud. Leave mail to the Sysop (thats me). Good luck and let me know if you write a better handler for DOS 2.5.

Questions on SpartaDOS with this mod. and RAMBO XL will be answered on the ICD BBS 815/968-2229, 24 hours, 300/1200/2400 baud.

would also be very nice. This mod is easy to do and perfect for running a BBS. One note, on compuserve there is a mod by Rich Andrews which should not be confused with this one, his uses 33 new chips and mine uses 9 new chips. Have fun.

Scott Peterson

Memory Control Register  
54017(\$D301)  
130XE/320K

Bit 7 6 5 4 3 2 1 0  
D a b C c d B R

D=0 enable diagnostic ROM.  
B=0 enable BASIC ROM.  
R=1 enable OS ROM.  
C=0 enable extended RAM.  
abcd= memory control bits.

Bank #	Control#
Bank 0	----->131
Bank 1	----->135
Bank 2	----->139
Bank 3	----->143
Bank 4	----->163
Bank 5	----->167
Bank 6	----->171
Bank 7	----->175
Bank 8	----->195
Bank 9	----->199
Bank 10	----->203
Bank 11	----->207
Bank 12	----->227<--\
Bank 13	----->231 \
Bank 14	----->235 / XE Banks
Bank 15	----->239<--/

If you are using MYDOS 3.016 and wish to use BASIC XE and a RAMDISK at the same time, boot DOS and poke 5275,163 and 5324,16. Go to DOS and write the new DOS. This will keep the two from "bumping" into each other. A similar poke can be done to DOS 2.5, it is poke 4838,163. The handler I have will set up 192K of the extra ram as 2 SD RAMDISKS or 1 DD RAMDISK.

If you are a hot-shot programmer(I'm not) I think a print spooler that uses part of this ram

#### PINS (and needles)

There are some good prices out there on the 300/1200 baud Avatex modem, as well as the various "trade name" Avatex, such as the QMI 1200ST. Although, you may have to have a cable made to connect the modem to your 850 interface or P:R: Connection interface. You can buy one for about \$23.00 or you can make one yourself. It really is very easy, you just need to know the pin configurations. Well, you guessed it, here is that configuration.

RS232 (25 pin)	850 (9 pin)
20.....	1
8.....	2
2.....	3
3.....	4
7.....	5
6.....	6
4.....	7
5.....	8

Once you have the items, you should be able to have your cable ready in about 20 - 30 minutes. If you really don't want to do it yourself, contact Steve Lawrence at SSL Enterprizes (see his ad) and he will build you a cable for a nominal price. Hope this helps some of you out. The Avatex/QMI 1200ST modem is a fine one. I hope to have a review of it in the next newsletter.

David Delgadillo

#### FOR SALE

Atari 800XL computer with OmnimonXL, 80 column upgrades for \$150 or ? 64K ATR8000 with two DS/DD diskdrives and extras for \$400 or ? Call Don at 463-1279

## REVIEW: CITIZEN MSP-20 PRINTER

By

Philip S. Gallo Jr.

As an old line Prowriter fan, I was in a quandry when I purchased my 520ST. My beloved Prowriter was just too incompatible to be used satisfactorily, and I knew I needed an Epson or Epson compatible to really make the most of ST programs and the built in screen dump. By the way, Epson compatible and IBM compatible are NOT the same thing. If you buy an IBM compatible printer for your ST, odds are you are going to experience some problems printing graphics. The severity of the problems vary from brand to brand.

After considerable searching, I ended up buying a Citizen MSP-20. Since this brand is really quite new and untested, it was somewhat of a risky decision. I'm not wild about Epsons, have had bad luck with Star Micronics printers, and Panasonic 1092's were back ordered. So the MSP-20 was selected by a process of elimination. I wanted something faster than a 1091, and I didn't want to spend a fortune.

The MSP-20 is indeed fast. In NLQ mode, it just about keeps up with the Okidata 192, and the Oki is a very fast printer in NLQ mode. In dumping graphics, it's about as fast as anything I've ever seen. The NLQ mode, in my opinion, more closely approximates daisy wheel type than any dot matrix printer I've seen with the exception of the 24 pin models, which are considerably more expensive. It also supports all of the features of *FIRST WORD*. In NLQ mode, it will underline, bold print, and italicize, alone or in any combination.

The MSP-20 has several nice features. The manual claims it will do NLQ mode in Elite and compressed mode as well as Pica, an unusual feature. I was not able to test this claim for compressed mode, but it will indeed do NLQ in Elite size. A dip switch (which can only be accessed by removing 4 screws and lifting the top off the printer - not really as bad as it sounds) allows you to select between Epson emulation or IBM emulation. The printer can be hardware switched in and out of NLQ mode by pressing the LF button and the On Line button simultaneously. You do not have to turn the printer off to switch back and forth. An 8k buffer is standard, and the printer will accept downloaded character sets.

The quality of graphics is about on a par with what one would expect from a high end Epson type printer. The vertical head alignment seems better than most, as dumps are almost totally free of those annoying tiny white horizontal lines that often appear between each row of graphics. Given the speed, print quality, and features, the MSP-20, and its slightly slower and less expensive sister model, the MSP-10, would seem to be highly competitive with similar priced Epsons, Stars, and Panasonics. I am quite pleased.

CITIZEN MSP-20

This is a test of the Citizen MSP-20 Printer, rated speed : 200 CPS. This test is in NLQ mode. The printer is hardware selected in draft mode, and NLQ has been called from the First Word print menu. The driver will not function properly if the printer has been set to NLQ mode by pressing the LF and On Line switches.

This is written in underline mode.

This is written in bold type.

This is written in bold underlined type.

*This is written in italics mode.*

*This is written in bold italics mode.*

*This is written in italics underline mode.*

*This is written in bold italics underline.*

This line is written in NLQ Superscript mode.

This line is written in NLQ Subscript mode.

This line is back to normal NLQ mode.

This line is written in the wild card mode, accessed by choosing light print. I have defined it as EMPHASIZED DOUBLE STRIKE DRAFT.

This line is back to normal NLQ mode.

S - D - A - C - E - BBS

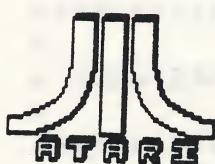
For a good time, call  
\*\*\*\*\*  
\* \*  
\* (619) 462-6302 \*  
\* \*  
\*\*\*\*\*  
300/1200 baud  
24 hours

## Product Review

### Montgomery Wards 13" Video Monitor By: Joe Piumelli

Amidst the thunder of the new ST world unfolding, there doesn't seem to be much for us 8-Bit'ers to cheer about. However, I feel compelled to share with you my experience in owning a Montgomery Wards Video Monitor. Actually it is more than a Video Monitor, since it does have a cable-ready T.V. tuner built in. So it is actually a T.V./Monitor. The fact that it qualifies as a Video Monitor is readily apparent in its better-than-usual resolution of both text and graphics. Right off I must tell you that one of the weaknesses it has is that it cuts off the right side of the screen, so you do not get a perfectly square screen of text or graphics when you power up your computer. However, it must be noted that this weakness was corrected in 1985 and newer models. (I bought mine in 1984.) As previously mentioned, the resolution is excellent as well as the picture quality and crispness. One standard (and very convenient) feature on this model, built by Sharp, is the fact that it has a T.V.-Video switch located right in the front of the console. This allows you to toggle from computer to T.V. with the push of a button. It also allows you to connect directly from the DIN outlet in the back of your computer in to the audio and video input jacks of the monitor rather than use a cumbersome switch box and having the hassle of reaching behind your T.V. set to switch back and forth from T.V. to computer, and having to tune in to channel 3 or 4 to convert into CRT operation. This also allows you bypass the RF modulator, which no doubt gives you better, truer video output/resolution.

Now for the good part. Something I cannot stress highly enough is the service support I received from Wards when an IC in my monitor went bad. After nearly a year and a half of flawless operation, all of a sudden, zap, no T.V. reception. Needless to say, I was quite disappointed by this since the life expectancy of an average T.V./Monitor should be 5 to 8 years or longer. I asked the Store Manager at the Wards where I bought the set to intercede for me, since I got nowhere with any store personnel, including the department manager. He was MORE THAN HAPPY TO HELP. To make a long story short, the bottom line is that due to their support and willingness to keep a customer satisfied, my monitor was repaired-no charge! How many companies will do that today for you a year and a half after the sale-with no extended service contract purchased?! (I don't believe in them.) End result and my recommendation: Wards does provide a good quality monitor at a reasonable price and stands behind their products (even those they do not personally manufacture.) Therefore, I do recommend this unit to all 8 Bit'ers out there on the basis of service support, price, and product performance.



March 16, 1986

MEMORANDUM

From: Buck Bragunier  
To: SDACE Board of Directors

Subj: SDACE Constitution and ByLaws

In light of our recent decision to change the meeting time of the regular monthly meetings, I reviewed the Constitution and Bylaws to see if any changes needed to be made. It appears that time has marched on, and we are not up to date. Therefore, I propose the following changes be made to the Constitution and Bylaws. With the President's concurrence, they could be presented in the next issue of the I/O Connector and voted on at the following (April ?) meeting.

The recommended Constitutional changes are as follows:

ARTICLE V - DUES. Section B reads: Dues shall be payable upon acceptance for membership. Dues shall be payable annually at the January meeting. [Recommend this be changed to read: "Dues shall be payable upon acceptance for membership and annually thereafter. Members are responsible for ensuring their dues are renewed annually."]

ARTICLE VI - MEETINGS reads: Regular meetings are to be held on the third Monday of each month. There will be no meeting in December. [Recommend this be changed to read: "Regular General Meetings will be held on a monthly basis, at a time and place as arranged by the Board of Directors. Any change to the regularly scheduled General Meeting time or place will be announced to the membership in advance. A Quorum shall consist of 25% of the members in good standing."]

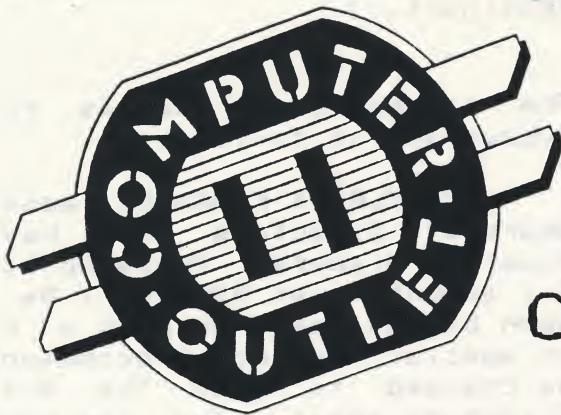
ARTICLE VII - BOARD OF DIRECTORS, Section A reads: The Board of Directors shall consist of the elected officers, past president, librarian, newsletter editor and membership chairman. [Recommend this be changed to read:

"The Board of Directors shall consist of the elected officers, Past President and Chairpersons of those committees designated by the President."]

The recommended changes to the ByLaws are as follows:

ARTICLE IX FINANCES reads: The Board of Directors shall have the power to disburse funds up to \$25. All amounts over \$25 shall be voted upon by the membership at a regular or special meeting. [Recommend this be changed to read "The Board of Directors shall have the power to disburse funds up to \$100.00 for non-recurring expenses. Disbursement of amounts over \$100.00 shall require approval by a simple majority of the members at a regular or special meeting."]

ARTICLE X PROPERTIES reads: All properties of the organization shall be in the custody of the President during his/her term of office. They shall be inventoried and passed on to the succeeding President within thirty (30) days after taking office. The inventory shall be recorded in the minutes of the first Board meeting after the transfer. [Recommend this be changed to read as follows: "All properties of the organization shall be in the custody of members designated by the President. These properties shall be inventoried annually in January, or upon change of custodian. A record of the inventory and/or change of custodian shall be made in the first meeting of the Board of Directors following the inventory."]



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OUR NEXT MEETING,

May 1, 1986 at 6:30 pm

North Park Recreation Center  
North-East Corner of the Park  
Adult Center